## RECORD

5220

Hunterto
ter. 30 20 x 1219
CMPT
BOT
PLOWMAN
OID



## PERSONAL ACCOUNT BOOKS

No. 2044

Available Rulings
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144 PAGES

U. S. A.

2. June 1945. Woburn Mass, Burlington Botanica Masearch Station. 5220. Cleuanthe prose (Roscoe) Eichler F Cult. hert grown from rhi-A-JP 3 mes seut from Kew. I US Hert 2 m. tell. Lvs. dark green above, purplish beneath. Braits greenish brown. Fls. yellowish. 5221. Marzutzchloa Kerb. 7 m. grown in pots. 5222. Brunfelsia plicata Urb. U Shrub 2 m. tall cultivated F Calyx bronzed green, flowers white, beginning slightly forward cream. F HBG I fenon Town, Road to Mc Coy,

Clarendar Parish, Jamaira. (Ploumen 3251). 22 may 1972.

F. Cult. Shrut 0.5 m.
A-JP Fly. violet foding White.
Coll. at Popsyan, Colombia.
(P1937).

Maine, Sagadahoc County. Nr. Bay point, Kennebec River. 12 July 75. Bog platets. K 12 Errocaulor septangulare Wiff.

F Submerged Equatic. Heads

White 5225. Utricularia cornuta Michx. Slender herb- edge of bog. Fls. deep yellow. 5226. Corylus cornuta Marsh. F Rozdside Shrub 2-3 m. Ihrol.

green.

5227. Vzccinium meroczopom Atr.

F (1) Cranberry.

Sphignum bog. Fry. smell, greenish

to pinhis 5228. Vaccinium macrocarpon Ait. F Sphaener bog. Fis. large.
petalo pelapin.

\$ 5229. Aralia Lispide Vent. \$ (3) Sendy roadsides Fls. yellowish grean.

5230. Scutellania epilobii folio A. Hamilton Common Scullcap , K E bet Rosdoile ditch. Herb I m, Fls. Isvender-bolue.

Harrisburg, Pa. 23 Sept 1975 5231 Cestrum

Cult. from seed from

Along Beaver Creek, Lower Poxton Twoly. 5232. Bideus

5233. Sneezeweed

5234. Penthorum

Colombin: Dept. Cundinamarca. Coll. T. Plowmen R. Jaramillo A. D. Vaughan. Between El Rosal & El Vino, along roadside, Alt 2600 m. Myrica pubescess 5235. Small tree 3 m. on open steep (2) rozdoite in thinket. LVs. Shing COL dark gree above, yellowish green beneath. Young frs. green. Ageratina gracilis (HBK.) K.+ R. 15236-US (2) West Im. tall on pu pedsite. Fls. white. Cavendishis cordifolia 523f. Cavendishia cordifolia (3) (HBK. 9Hoer. CoL NY Shout I un on open, steep road bank Boacts put Calyx GH gellow green. Corolla tube subfleshy lover of deep pinh, upper 3+lobes

Between Chuscal and La Vega. 2200 m. alt. 21 Jan 1976.

5238. Peperomia Vulcanicola C.DC.

(2) Succellent creeping
hert on open roadbank!

Stempinh. Lis. yellow green
store, pale yellow green
beneath, sometimes with
ted stripes. Spikes pale
yellow. det. R. Callejas 1982.

5239. Kohleria gesheria (2) Kert to . 7 m. tallow Get steep roadbouk, Lvs. dark Sett Git green stove with red manegin. Paler green beneath with red havis on nerves. Redical with red havis, Colyx yellow green with red havis at base, Corolla red-

orange with red-orange hours.

5240. Oncidium orygale Reich . f. + Warscz. Branches terrestral orchis on steep billoide in partial shade among col brown. Petale red - violet COL above, copper brown beneath. MES Column foroverish green. 5241. Micoma flor: bundum (Bonpl.) DC. (4) Tree 8 m. fall in pasture Col along small brook. L'vs. dark U green stove, delle vellowish green to purple beneath, Thing. Rachis yellow-green. Calyx pale orange. Petals. 115 (TH white, appearing t petal puch beneath announting.

5242-Passiflora of Durantiaca (3)from cliff along road, 4 m. Sepals pale green beneath brownesh at middle, above - COL GH greenish white Petals greenswhite. Corona in 2 series. Outer series polo yellow with brown wark in center. Anner series light green Surrounding brownish disc. Androgynophone basally people green store. Warrento green. Ovary & Styles dark brown. Strama yellar. Fr. darh brown with white hairs. Alt. 2050 m. (4) det. R. Callejas, 1982. Exiply to on tree in open Seed Spikes pale, yellowish green. · COL U

F

COLOMBIA: Cundipo marca, Between La Vego and Cascajal. Alt. 1500 m. 21 Jan 1976. 5244. Policoures? Shrub 3 m. in thickets along stream (affluent of Rio Tobis). Major branches of rachin pale brown. Utillate branchis and pedicels yellow. FRuits dark blush green. 5245. Pitcainnea maidifolia (c. morr.) Dene.

(2)

GL

F

(3) Terrestrial browlind 6 labels COL on steep open slope along road, 1.5 m. tall. Bracks bright red (+H with green tips. Pedical yellow. Calyx greenish yellow, itsed at base. Retall greenish toward base, apreally white only one seen. U5 det L.B. Smith 1976

Colombia: Cundinamarca. Between Cascajaland Tabla Grande Alt. 1000 m. Nocaima Region 5246. Anthurium Acaules cent. Terrestrial Kerb. Lvs. shing CoL on both sides, dark green GH Spathe brownsh (part). Spadie brown' Frequent. 5247. Anthurium (2) (3 tabels) Ferrestrial herb with CoL stem to Im. Spathe white green. Spadix light brown. GH Frequent. 5248. Mucuna of mutisiana? · Mr (5) Extensive vine in hitside thicket FOL along vood. Infl. pendulous GH on pedimele more than I, m. long. Calyx dash grew with light brown havis. Consola pale green to creamy white Fruits

price with yellowgreen ex-orescenced with orange to creamy white stuiging hairs.

Sapudoe

5249 (a)

Mo GH

Extensive vine in thinket zlong 102d. Fls. creamy white. Fruit. (ight yellow green.

Tfoloman + D. Vzughan COLOMBIA: Depto. El Valle, Manicipio de Tulua. Corregimiento de Mateguadua. 24 JAN 1996. 1 JARDIN BOTANICO "JUAN MARIA CESPEDES". Alt. 1100 m. 5250. Engthroxylum haughtii Gentner (3) n.v. "coea negra" fotos Fuell tree 6 ca. tall 3-5 acc. growing in flord plain of Rio Tulua. Lvs. subcoriacions dull, Tath gree store påle green beneath, drestal observe. Herile: 5251. Eugenia monticola (Sw.) DC. det R. McVzugh 1976 COL (3) Thrub 1.5 m. in spen GH pasture, Fb. cream. FRS. MICH

GH

us

HIL 1160 m. Erytheoxylum hondence HBK. GH 5252. (of (3) N. v. "coca blanca silvertre" fotos Yall shrub 4 m. along trail in Secondary thicket. Branching flat. Lus. yellowish green shore, pole green beneath. sterile. Alt. 1210 m. 5253. Engthroxy luca haughtis Gentner COL n.v. coca negra Thrub 1.5 m. tall in thickets on open hillside. Fls. appearing GH with new foliage. Lvs. bright yellowgreen. Buds yellow-green. Young trigo pale green. Old Tvs. dark green above, midret pole gree, pale gree hereath. Pedicel yellowith gree.

5254. Erythroxylum hzughtii Genther (18) Wood: AN, MADI. Shreets 5-6 m. in hillsich seed thicket, Branched at base fotos into 6 main trumbs, to 6 con. lue diameter. Back light greybrown, longitudenelly vugose. midrib 14. green, dark green, dull abour, + coly / (to hi yellowish green; Retale pale TEX gree; Corona & filoments creamy white. Stigman gree. Fruit, FH MO) pole green, turning black
US VEN pole green, turning black
RB & on picking (boursing?). Ripe fruits
reputedly apparaintly red, exten by birds! (4) Subop. alla A Steader Shrub 6 u. tall in dry per hellside thicket. Los. subt-Col (tilt corisceous; dark shing green Hochi + calyx light green. Corolla. Creamy yellow. Get. D. Simpson fo. AD7K

Can (3) Let R. Mc Vaugh 19 Hb Mich Shrub 2.5 m. fall in dry My-tacese GIt? hillside thicket. FRS. dark 525f. Calea prunifolia H.B.K. Compositu Col (3) Straggly shrub in open thicket. Fls. deep yellow. GH 5258 Bechain det H Robinson Composite COL 45 Spindly Substrub 2.5 m. tall in dry hillside thruther. Fls. Whate. Citharexylum kunthianum Moldenke S259. Acqiphita det Moldenke 1976 d (3) Col (3) Treelet 4 m. tall in hellside NY thicket . Fls. white. Col 5260. Chromolaena scobra (L.f.)K+R. Grupostee US (2) det. H. Robinson Spendly substitut in hillside thicket. Fls. pale levender.

3261. Panicum Col Climbing herb 2 m. tall in dry thicket, FRS. 6/2ch. 5262. Croton gossypii folius Vahl var.
(3) hibiscifolius (Kunth) Mull. Arg. COL Yneelet 4-5 m tall in dry DAVIS hillside thicket. Latex furning GIT yellow vauge on exposure, Fls: 5° creamy yellow; 7° Fls. seen.

det. J. L. Webster 1976. 5263. FARLOW (3) Lichen hauging from trees. 5264. Erythroxylum brughtii gentger ] COL n. v. "coca negla" Shrub 2 m. fall in (FH undergrowth of thicket in Shade us Lvs. lange, doch gren stone, undrib + mejor nerhes pale gren: pali gren beneath. Herile. Areolar vegion slightly

Alt. 1260 m. (oL (3) det. D. Simpson 1946.

E Spindly shrub 2 m. tall in per dry thicket. Fls. and fruits 5266. Psychotria in open thicket. unique (1) Shrub 2 m. Fls. crezm. CoL) (3) Let Moldenhe 1976

Ny Sping Scandent Shrub à thicket, 3 m. Fls. pale (zvende. FRs. yellow 5268. Dracontium Col woods. Sterile. Fetrole pale booun, mottled suche-like. 5268-A. Spirenthes? only to Kerb on dry hillaide

5269. Engthroxylum handen # # . fotos (10) nevicoca bloura silvestre GL Thrubs 1.5 m. fall in Shede GB USM is secondary words. Lus. doch ECON green 2 bore; pole green beneath midrit dark bornen. Fls. creamy White. Fhs. dark turning us F 70 Kou danh redder L. orinocense H.B.K. 52 fo. Engluroxylum haughtii Gentuer no. "coco negra" A Shrub Im. tall in open COI hillside thinket Lvs. light USM gellow-green skore, pale green beneath. Petals FLOW GH 45 Right yellow-green, corona F K 52 f1. Loranthoe. 6L hzughtii. Young fruit green

Alt. lloom. 52 f2. Engthroxylum novogransteuse (Morris) Hieron. (7) Aw Cultivated Shrub 4 m. randiver Maria Capeller. We man in Jandin Botanico "Jose Maria Capeller."
1882 deep yellow ish green the tereology tol usm 2 bone, pale gren beneath, teresone tegion distinct, slightly poler gren. FCON US Young Ivs. bright yellow-gree. Fruits green, turning gillow then red. K neil NY 5273. Oryetanthus alveolatus (HBK.) Kuijt Lovanthae.
(2) = (0. amplexicantis (HBK.) Eicht.) COL Brasite on Erythroxylum novogransteuse. Stem & richis EON light brown. Auft. Fls. + friest frs green. Let. C.W. greene f6. 52ff. Solenum pseudo lulo Heiser Spreading Spring herb 2 un. growing slong Lus. dark gree with purple hairs on hid rit + major nerves shore, pale green beneath. Calyx light

green with purple hairs, Corolla some white. Fruits light Velen Cipio de Tulus. Corregimiento de Mateguadua. Along Rio Tulua 2bore Inspección de Policia. Aít. 1200 m. 52 75. Eythroxylum ulei O.E. Schuly five Straggly Shoul 3 m- tall, LVS (A) firmly membranaceous, dark COL green stoore, pale green beneath. Pedecel + Calyx pale green. Fruits danh green, afaymane. usm ECON F K NCU trick, turning black. NY

TIME

COLOMBIA: Depto. Cauca. Pisajé, al Mé de Popayan. Carretera de los Ollos. (Yambitara). Alt Zooom. 5) For Companes digitaliflora (Linden + André) Fritsch POP (3) Sprawling herb 2.5 m. along quebrada. Lis. dant green above, with dark red hairs; pale green beneath COL Selley GH with white heirs. Corbila tube deep Jack brown spots. Set. H. Wiehler 1981. POP (4) Thee 6-f m. Budo yellow.

COL 100 Let. W. Haln 1882 (D) K G4 52 fs. Anthurium FOR (3)
GIT Climbing løipligte Spethe green. Spedix black. For 5299. Polypodium
Col (2) Epiplyte on tree trunk.

5280 Oncidium Epiphyte or tree touch. Fis. yellow with brown COL Markings. Frequent. Orchid - POP Ep. phyte. Fls. dull yellow, Col AMES . Composit. (2) Kerbaceous
Herbaceous
Herbaceous
Fis. Vine along roads'de. - POP - Col feru Hong streaming frest GIT Jern 5284. Col Pop (3)Terrestoral fen in forest GH

5285 Justicia Chlorostochya Leonard Acauthae.
(3) det. D. Wosshensen 1996. POP Herb I un. on steep bruk in forest. Brack light green. Fls. White. COL 5286. Besleria solanoides Geoverise Hert 2 m. in thicket COL wear stream. Et Corolla overege. STELLARY GH 528f. Phytolecea Herb 0.8 m. Sterns red-purple. Fls. red-purple (megenta). In open thicket-5288 Anthurium pallens Schott Live selly terrestrial herb 1.5 m. tall on steep bouh in forest. Stathe JPOP + pedieuele gellowist groen. Spathe dark gleen. COL GH us

5289. Bornarea Col seed to Herbaceous von GH Waimer Long Hickets, Sepala. Herbaceous vine in seconpale orange abassially with brown spot at tip, Pale yellow-orange adaxially. Petals yellow, adaxially purple brown Spots. (3) Shrub<sup>25</sup>m forest on steep hells ite. Radui deep mogenta. por 5290. Palicourea Corolla violet. 5291. Anthurium POP- (3) GH +34.76-41 step hells ide. Spathe dack purple. Spadix 5292. Passiflora POP- (3) along rost Sepals + petalo Ca 9H

yellow green without white within Concladark gree with yellow tips. FRS. dark blue-green. Campanulaceze 5293, ( de l'alunde POP (3) derb 2 m. on oper hellside near ofrea. Fls. light green. COL 5294. Authorium twe-selby Epiphyte on tree trumps. Spathe red. Spadix green. POP 5295. Col (2) Fern in forest slong stream. 5296. Pityrogrzuma Fern in open thicket zlong

GH

GH

POP (2) Herb to 5 m. along road in open thickets. Fres. (yet Heliconia burleana Abalo + Morales det Andersson 184 5298. Heliconia scarlatina Abalo + Morales POP (4) Col 8 label det. L. Andersson 1982. Herb stong stream in Git ravine, to 3 m. Bractions il cold to red. Rachis yellow. Brackedes gellow. Evotta Perisith of green. Ripe fruit blue. Petiole Im. long. L.f. blade 1.5 m. Costa red Reneath. (2) Terrestrial in facest clong Strea. POP 5299 5300. Peperonia GL Epiphytei succulent herb on tree trunks. Sp. hes yellow

5300AMmotopa uniflora L. GH (1) Steep Stope. Steus + scales reddish-Col (2) det B.g. Schubert 19ft. (It Herb Im. tallin forest an steep hillside. Fls. Drender puk. 530/A. Renealina occidentalis! to Mars wet hollsides
(rhigmes) wet hollsides

ColoMBiA: Dept. Cauca. 27 Jan 1976. Road from Popayan to Tambo. Km. 8. Villa Maria. 1700 ml Alt. 5302. Tibouchina lindeniana Cogn. (3) Shrub 2.5 m. in posteur. tis. magenta purple. Col 45 5303. <u>Begonia</u> fischeri Schrank (4) (B. tovarensis KI.) Sut Herb in open make L. FV. pinh: det L. B Smith 1976 POP CA us GH Monnina (1) Swall Shrub in thichetis. Fls. blue, with yellow keel. 5305. Monnina Col Should 3 m. is moist thicket. Ft. Violet, keel yellow.

GH 5306, Companso Fritsch

POP (3) therto 1.5 m. in low thicker. (C) (A) Selley Foto! Corolla deep pinh, lobes with dank brown spots. Celyx + pedicel with red Composit 530F. POP > (2) Shrub 3 m. tall in pestere. Fls. creamy white.

ColoMBIA: Dept. Cauca. Road form El Tembo to 20 de Julion Alt. 2100 m. ca. Kur. 55 (Vertiente Oriental) 27 Jan 76 (Vertiente Oriental) 5388. Alloplectus ichthyo derma Hanst. Gesneria Herb on helloide i (5) forest slong quebrada. Lus. dank græn storre, pola green or dede ted beneath Pedice! tolyx deep ree. Covalla dorsolly deep yellow, ventrally deep red. Let. 4. Wiehler 1981. (A)7 K Orchiel faller log inforest stong quel rada. Fis: bower 2 stepals white, dotted dark red-brown, datk red ten Petal yellowski striped striped dark ted: Beetle 5309A. (F)

53 10. Renealinia Gerruginea Mass det P.J. M. Maas 76 10 ishels Derb 3 h. tall growing 2long quebrada at edge of forest. Braits ved turning boom. (A) POP OL Colyx red- Corolla white. CTH FRS. pale greensh brown; 4 and white; seeds black. 5311. Meriania nobilis POP (2) of pesture zlong 102d. Fls. deep magenta. FRs. deep purple. 5312. Monnina POP (4) Large Shows 4 m. tall. FIS deep blue-Violet, keel yellow. Along forest margin in thucket. 5312A. Solanos.

Live Exteniere Vine, soft-woody, Waitie in lest forest.

Vertiente Occidental. Alt. 2100-2300, 5313. Miconia hadrophylla Wurdack det J.J. Wurdack 1976. Tree 4 m. with spreading branches, Petals white COL turning pink. Steep slopes US in cloud forest GH 5314. Orchid Col (A) Terrestrial orchis on vosdbanh. Fls. gellovish AMES AMES 5315. Fuchsia sylvatica Benth. det. B. Pichersgill 1976 PAP-Shrub 2 n. Fall in CoL moist vood side thicket. GH Reading Hypanthia pale pinh. Colyx pale gren. Petalo desp ATT MO 5316. Kohleria sp. Gesneria. det. H. Wiehler 1981. New to I pa. tall in forest on sleep slope. Cons Na red.

53 if. Companes offinis Fritsch Gesneriacese Climbing best in cloud foret + a rood banks. Pop Corolla deep pinh with soft white hairs, white at a pex. Col man a lokes cream 2d2x12lly with darb brown spots. Lvs. darb 1-photo green shore; with whitish veries principle beneath. (TH Beslerie sp. Gesneries. 5318. Beslerie sp. (3) shope, to 2.5 m. tall. Pedicals of call and purple. Corolla POP (A) COL COMPAGE menge. GH/ (A)77 K Gesneria 5319. Gesterenthus wendlandianus (Henst.) Wiehler Hert in wet forest on steep Stopes. Calyx pale greenish white POP 5 Consta pale yellow, to be with dark brown spots adaxially

BYK Let. 14. Wiehler 1981. colo GH Seley

532D. Dalbergalia Citt Pap ~ Erect herb ( n. tall & COL steep slope i lust forest. SAME lus. tack green, tipped red. Bracks + calyx lokes pala yellow. Corolla pale yellow. 5321. Allopleetus-teuscheri (Reymond) Wiehler Gesneria CTT 70P2 Herb . F n Hall. Calgx STAN STAN ( Jay wrumpiled, deep med. Corolla gellow, when fed-orange. Let. H. Wiehler 1981. (Suparulacede 5322 BURMEISTERA SP. (Supsh. DET. J. BLEWETT 1989 POP -(3)COL Ders to 2.5 m tall in wet oper thicket zlong 1826. Ovar, top and corollar dock red-purple. Caly × 16he green keneath, don't red purple slowe. Ripe oboy pale pach.

5323. Stenospermetium angostwense Engler det D. Wassheusen 1976. Scandart harb hauging from ine-Selby Steep road bouch. Spathe treamy. POP yellow. Speder creamy white Coli GH Frenesia 12/13:1-9. \*

Type 4

Type 5

Type 5

Type 5

Type 6

Type 6

Type 6

Type 7

Type 7 Boute on steep hillsides i wet forest and on road banks. Stewn, petioles + midrib beneath fotos. dock red-purple. Lus. dark green POP LE-HOLO zbore, lighte gree beneath, or reddish. - Duft with teap to K Au. tall, surparoug other tos. (TH Brack bright red. Brackeole cream, tipped reddish. Fls. deep yellow throughout.

Gesulriacou 5325. POP ~ (2.) forest. Breats + calyx bright ted-orsuge. Corolla yellow. COL Campanulaceae 5326. GH Eugsted. green. Corolla des bright oed, orzuge et lobes. Gestelia 5327. COL' Sled to Selly blent. 8 m. tall in road. bank. Fruits dull white. 5328- (Suponea honsteinii Fritsch det. H. Wiehler 1981. GH (3) Herb growing on woust road banks. Ws. dark gree 2 bove with dark red hairs, beneath dank red purple with whitish nerves.

Pedibuele + colyx with dark red hairs. Conla delp puih, white at constriction + lokes. Loves with dark purple spots 2daxially, 5329. Bonarea 134 (2) Vice in moist thickets GH slong void. Brack + pedicels gree with dark red hairs. Periauth bright red-orange.

Col

5330. Bonsvea Vine in moist thickets along road. Pedicels + bre eto green! with dash old hairs Perwith paler red-orenge than 5329.

Photo 533 L. Befaria glauca var. coarctata Erica ese POP: (1) Shrub or treelet to 4 m. ball

in thickets Calyx dark red. NY GIT Corolla deep rose-puh. Lutey & Mosd from El Tembo to 20 de Julio. Alt. 2200 m. 5332. Restregia Epiphyte on treetruch. Ames Perient pole cream. Colum danh red.

ALEOHOL COLLECTIONS ONLY (SENT TO KEW)

SER following 5377.

5334 B TELIPOGON WALLISH

5334 C ONCIDIUM FORMOSUM

5334 D ONCIDIUM COCCIFERUM

5334 E ODONTOGLOSSUM ANGUSTATUM

Conomin: Dept. Cauca. 28 JAN 1976. Coll. T. Plowmen, D. Vaughan, + H. granados. Rosd fram Puracé to La Plata, just above Puracé. Alt. 2700 m. 5333. Tibouchine mollis (Bongl.) Cogn. Welas (4) Shrub to 4 m. fall m pop to deep magenta. COL DIK det J.J. Wurdock 76. Brque National de Puracé. Alt. 3300 m. Road from Puracé to 62 Plata. 1 5334 Centropogon ferrugineus Shrub 1-2 n. tall in moist fluchets Calyx + stems light DTAMES brown. Consila red-orenge. 5334A. Peperama seed of Epiphyte. Semifleshy with to selly reductives. I stemo.

POP (2)

5335- Fuchsia corollata Benth. POP (4) det. P. Berry 1983.
COL Spindly Scendert shrub (OL) GIT I m. on old stump. Fls. deap cer une ved. (ADT) MO 5336. Begonia urtical L.f. (2) det L.B. Smith 1976 Erect herb in moist Col (2) US rosdside thicket. Stewn + If. nerves reddish. Fls. deep rose pinh. 533f. Elzphoglossum POP (4) Erect herb to 2 m. tall in deuse moist thickets. GH K 5338. Desfontainea Spinosa (4) sp. nov. R. E. Schult. pop (4) Scendent shrub in moist red, winds pale yellow COL GH F

Lokelia 5339. Centropogon (3) Harbaceous vine i dense moistathickets. Fls. carmie Col puli 5340. 9 sio dend ron Macronthus Killip

(4) Let CW. Greene 1976.

Tau Shareh 2 in L. 100. Tell Shrub 3 m. tall in degre moistathickets. Fls. yellow-POP COL GH Sibthorpia repens 5341. Scraph Por 3) det P. J. M. Maas 1978. Vine on ground zuring CoL mosses, Fls. Semi-fleshy, 題戶 dack red-puple. 5342 Bonsrea (3) Herb on road beach smong POP mosses. Ovary pale bluish gree. 44 Coly Outer topals red. June tepals yellow.

Call. Timothy Plownon and Duncan Vaughan COLAMBIA: Dept. Cauca.
Rosas to La
Sierra, Alt. 1610 mi 29 Jan 76. 5343. Kenealmia y. thyrsoidea (R.+P.) R+E. (6) 12 labelo bert 4 m. tall on Steep beach along quebrada. Col Pedencle red. Fruit. U GH bright red furning dark F purple with age. and pale 'vraugh seeds dark brown. Lives Silver. Col (2), det. R. Callejas 1982 Fleshy herb on wet rochs in forested quebrada. Spihs creamy white. (t) det. D'Aray 1988. Sprzy 1988. 5345-Solanum aff. caripense Dun. COL 414 Sprewling herb in moust MD rosdbank. Fls. white.

5346. Desmodium aparines (Link) DC. (3) det B.G. Schubert 1977. Coh tall scandent herb 2 h. long in roadside thicket. Flo. puih to pale blue violet. FRS. green. GH 5347 Companie Kordback in Huihet. Calyx GH light quee. Con la deep rose pinh Lobes light green with dank brown sports. 5348-Piper crassinervium H.B.K. (4) det. W. Burger 1981. Tree to m. tall drug quebrada. Spuher Cream. GH U 5349. <u>Peperomia blanda</u> (Jacq.) H.B.K. (3) det. R. Callejas 1982. Fleshy herb in forested quebrada. Sterrs reddish GH below, green shore. Spike greenColombia: Dept Cauca.
Rosd between Hesmita

and Piedra Sentadas

zhore Rio Hesmita.

Alt. Ca. 1100 m. 29 Jan f6.

530-Renselmia occidentalio (Sw.) Sweet (5) Var. occidentalio det P. J. M. MAAS 76

Werb 3.5 m. tall along

Smell queloreda et edge of

forest. Pedurule dill gree

to reddesh. Brouts pale

brown: Railis red. Pedicil

ovary + calya red. Et Corolla

yellow. Femils red.

F

GH

us

5351. Desmodium. aparines (Link) DC.

(3) det β.g. Schmbert 1977.

Herb In tall on open

Fisturbed Site slong road.

Fls. pinh-violet: Fruits

Feddish.

COLOMBIA: Dept Cauca. Road

Between El Bordon and Patia,
alma Rio Patia. Alt. 590 m.
30 Jan 76 5352. Casearia aculeata Jacquin Robac. (3)Scandent shrub to 3 m. tall, CoL 40 Sometimes armed. Growing in 2° gallery forest. Fls. creamy white. GH 5353. Myrcia fallax (Rich.) DC. Myrtae. POP (4) Small tole 5 m. in secondary riverine forest. Immature fruit Col Gilt pale green det. R. Mc Veryh 1976 MICH 5354. Delechamp ia canescens Kunth.

det. g. L. Webster 1976.

Vine 4-5 m. tall at edge Pop COL of thicket Brack white with GH green veius. Fls. green. DAI K F

5355. Mysalis angulata L. Jolanae. COL (2) det. W. D'Arcy 1986 pule Roadside weed. Fls. yellow MO with 5 born spots within Relyx i fruit pale green with dash brown verno. Frest still green. 5352 Fridailis Cupznia sp. CoL MO of thicket FIS cream. Road between Patia and El Estrecho.

Alt. 550 m. Carrel Onebreda affluent

It Rio Patía. 30 Jan 76 COLOMBIA Depto. (auca: 535f. Malpighia glabra (6) Shrub to small tree 2-5 4694 COL u. tall. Petals pale pinh. Seed > Vivabi Fruits bright red at metu-GH bity. Very common. BH HICH 5358. Pithoctenium crucigerum Bignoniaceae (5) (L.) A. Gentry Bignoniae (5)Destraceous vine on rue-POP bank, to 5 m. tall. Conta -CoL Mo Creany white. GH det. A. Jenbry Ho K

Tr. + Pl.

5359. Stigmaphyllon echitoides Melpigluse

(3) det. W. R. Anderson 1976. Col (3) Vine in thicket Hong river. MICH Fls. yellow FRS still green. Orinocense H.B.K. (10) h.v. "coco", "sacha coco macho" CUL MO Shrub 2 m. tall in 2° USM Tiverine forest. Branches Pop spreading. Lvs. dark green storre, us Glt. dull, midrib pale gredij lus. very pole yeer beneath with to sveolae. Sterile. Rare (only 2 seen). Econ) K COL (3) det. U.L. Webster 1971. Euphorbia GH glandular Shrub 1.5 m. tall. Perianth Jack red. Fres. green. Lorauthae. 5362 Phoradendron POP Parasite of Springer. Fruits
GH Stems + lvs. dark green. Fruits orruge.

GLONG BiA: Dept Cauca, Road between galindez + Mojarras. Quebrada affluent of Rio san Jorge. Alt. 550 m. (6) Plowmon Patiacum (O.E. Schulz) COL Shrub 1-4 m. tall in secondary forest along quebroda, USM 45 In Shade. Lvs. dark dull GH green slowe, had rib lighten green. Lus. pale green beneath aneolae faintly distinct. Sterile. Frequent at this locality. FK Nell MO ú TEX ? Var. pardoana (Harms) Macby. 5364. Calsalpinia Cassioides Willd. Calsalpinas (4) det. T. Rowmer 1978 det. T. Rowmer 1978 POP Small tree to 7 m. with spreading branches. F15. v COL GH 5365. Solanum pseudolulo Heiser Sping Shrub I m. Los. dent gren Horre, pale green beneath Fls. ... white. Fruit green, orruge it maturity

N of El Bordo. Hacienda El Trigal. - Basin of Rio Guachicono. Att 808/m. Jan 30, 1976. Alt. 800 m. Flood plain of Rio Guachicono. 5366. Cepsicum annuum ver. glabriusculum (Dunst) Heisen + Pickers gill } Shrub in forest to 3 m. tall. col (4) READING ECOP Fis. edady white, on there blue. FRS. Green to orange : C. annum L. var. aviculare (Dierb) 5366 A-Tridulia seeds. D'Arry + Exhbrugh 1982. 5369. Cestrum Scrambling Strub 2-3 m. tall in forest. Fls. Jull yellow. COL GH MO Hills above ruien. Alt. 900 m. Renealmia occidentalis (su.) Sweet var. occidentalis (4) Herb 2.5 m. tall on open COL cut-over Stope. Peduceles dark green. Radio back red. Bracks GH brown. Pedicel overy + cally red. UKEFIS. yellow. Fr. red. dril orange. Seeds light brown.

(In Finca El Trigal)
Houseyand Mid way between
Kis quachicono 2nd Penzuerica Highway.
Alt. 960 M, 30 fm Ho

(a) 5369. Hibiscus Malvere

Col (2) n.v. ambergris

Econ Cult. Herb 3 m. tall. F1s.

Jelow, turning pinh. Frs.

Green, brown at maturity.

COL (2) "Bji" (Cultivated herb, Im. Fis. crowny white. Firs. yellow.

Col W.v. mani

Cult. Herb. Geocarpio fruits 6 mm. 5372. Gossypium (2) hv. 2lgodón'' Col Treelet 3 m. Fls. yellow. Coprules Green. 53+3. Exploroxylum novogranateure (Morris) A nv. coza" Spreading shrubs 2.5 h. NAME tall, 2 m. in dismetty Seado soid to be 5 yrs. old from seed. COL us ECON Leaves yellowist green shore very pale green beyeath with 的 K district arealar, bilineate. Fls. creamy white, buds yellow ish. Fruits gree furning orange, then bright red. Cultivated in cocal. On of few bushes not stripped of Caves. Pertilized with Cow menure Since of: Marca Tulio Ruiz Ordónez Calle 5#6-60 Barni Celle Nueva El Bordo, Ceuca, Colombia.

5344. Extluoxylum nongranateuse (4) (Morris) Hieron. Col n. y. Coca" ELDW Erect Shrub 2.5 m. tall cult-F ivated in cocal. Trules and K major branches covered with lichen. Lus. small, chlorotio) light yellow-green 26 pre, very pale green beneath, silevelate. Fls. cream. Fruits green, the yellow then ordinge, red at meturity. Cult. in cocal. 53 fs. Erythroxylun novogranateure (4) (Morris) Hieron. W. coca" Shrub 2.5 m. fall with open spreading arching-over branches. Lus. carher EWU 7green beneath, bilineate

> Cult. in cocal. Distruct "variety" - same use.

FRUITS red.

5376. Bryophyllum Calt. herb with fleshy lvs. Calyx dark hed below apically pale green. COL-unicate Used for earsches. 53 Ff. Salvia COL (2) h.v. veleriena ECON Calt. herb. Lis. dank gree 2bove, dank ved purple beneath. Dufl. dank red purple. used for "los nervios de mujerer". COLOMBIA: Dept. Cauca. Parque Nacional de Puracé.

ORCHIDS 28 MAN F6. Humberto Cultivates? brought in by locals. Granados

No. 1.

Repuls + petals Lifellon with brown spots, Lip brown.

No.2. Epiphyte. Fls: pepals + petals danh reddice brown

No.3

Epiphyte. Sepals dullyellow with dash red lines Petals basal dash red apically dull yellow, with dash red lives.

No.4.

Epiphyte, Upper 2 Fetal deep yellow apically hasally with large dark red spot. I Lip deep yellow. Sepala sull yellow.

No. 5. Epiphyte. Sepela dell yellow. 2 toper putals dell yellow with dech res voice "at boat. Upper

petal duli pale yellow with paired dark red lines (15 pairs).

M

COL

US

ColoriBIA: Dept. Canca.
Pausuerien Highway between
Calibio and Piendamó.
Alt. 1660 m. 31 Jan 1976

Col (2)

Epiphyte on moss, treetruch.

GH du forest slong small river.

5378-A. Monotropa uniflora L.

Saprophyte in oak led humus in forest along small river. Stem, scale leaves and fls. pale red.

5349. Merienia speciosa (Bonpl.) Naud.
(3) det. J. J. Wurdack 1976
Shrub 2 m. tall on open
slope in thickets. Calyx light
green. Petals bright magenta.

Piendomó. Along Rio Pien-domó. Alt. Ifos m. 5380. Erythroxylum novogranateuse (Morris) Hieron. Telleting Shrub 4 m- tall. Leaves COL usm young, bright gellow green zbore, pale green beneath, bilipeate. Budo pale yellow, Recently picked. ECDW F NY Growing in affec plantation on stope stoore river 5381. Suffroxylum novogranateure (Morris) Hieron. Shrub 1.5 m. tall growing COL in offee plantation above rule ECON F Heavily infested with lichen. MO Short, of erect branches. Lf. young, bright yellow green 2 bove, pale green beveath. Recently picked.

COLOMBIA: Dept. Cauca. Sontander de Quilichao. AIT. 10 40 M. 31 gon 1976. garden og Nestor Uscategui. 5382 Erythroxylum hovogranateuse nu Coca" Tree 4-5 m. tall with trumh 10 cm. DBH. Said to be 25 yrs. old. Lvs. bright green zbore, berg pale green; beneath arealar pale gellourish green, bilineate. Sterile 5383. Erthroylum novogranateure (Morris) Hieron. Tree 5 m. tall cultivated in garden. Trunk 10-15, Cm DBH. LVS. medie dark green, dull 2 bove; pole

COL i garden. Trunk 10-15

ECON in garden. Trunk 10-15

ECON Con DBH. LVS. median dan

green, dull 2 bove; polle

green beneath, areolae

polet gellowith scen,

bilineate. Sterile: Partial

Shade.

ECOD)

FOTOS of there: Last 3 in one roll (3) Hieron. Stender Tree 5 in fall growing in garden in full sun. Trumber (cow) pale green komeath, bilineste, arestoe somewhat paler. Fruit light red. (SAME info. at 5384]+ 5384- Sucher shoots from trunk (2) 1 5384 \$ 5384. 5385. Erythroxylum novogrsnateure (Morris)
(6) Hieron.
nv. "coro" ECON F Slender tree 5 m. cult wated NCU 5 cm. OBH. Lvs. yellowish CGE IW green beneath, bilineate, green beneath, bilineate, areslae Sometrius lighte. Fruit bright red.

Colombia: Dept. El Valle. Rosed from Santander to Quilichoo to Cali, kun. 30 from Cali. Alt: 955 m. 31 Jan 86 5386. Canna glauca L. (2) 4 libels Herb 2 m. tall growing in open marsh, Rachis and overy policy light green. Calyx cheany white Corolle 2 d steminode pole jellow. Frs. light green, turning Peru: Lima. Miraflores.

15388A. Dichorisandra Commelina lifery Cult. herb 2.5 m. tall. 7614

COL-

Seed

GH 11\_

\* COLL: TimoTHY PLOWMAN Peru: Dest Lima. de La Molina. Jardi Bránico. 6 Feb 76. 5387. Engthroxylem ulei O. E. Schulz Stranglings. Lvs. dark gren stove, baler yellowish gree beneath, thickethe Econ (6)

F NY

usf anal.

col

BH (Morris) Hieron. ECON (3)
BIT Calt. Stark month 2 m. F/s. breau. PERU Dept. Ancash. 13/0V. northfrom Lima on Ponamerica. Highway. 9 feb 76. Alt. 20 m. gramineae us 5389. in low sandy area. GH 5390. Distriction gramineae

1 P (3)

Lest forwing +1... Herb forming thich meti in low

PERU: Dept. Aucash. Prov. Casma. Km. 263 N. of Lima on Panemerican Huy. Alt. 20 m. 9 feb f6. Las Forras. 5391. Cheropord. V USM (2) Herb I in. tall in dry must flat. Fls. dark greenish brown. GH Cheropod. 1(15VT 5392. GIT (2) Herb Im. tall i dry mud-flat. FLS. pale green. 5393. Capparis Cordata R. + P.
(3) det Emma Cerrate 1976.
Spreding Shout 12 1-2 m. tall forming JF USM rounded Chungs, Fls. cream GH to bright yellow. # 185. 44 (4) Let Emma Cerrale 1976. Verbens. Prostrate herb on sand FUSM hilloch. F15. pale pinh with yellow markedys.

Penn: Dept. Lambayeque.
Prov. Lambayeque. Km. 85 f from Lima, 50 WH of Olmos.
Alt. 160 m. Feb. (0, 19 F6.

5395 · Caralpinia

Sprlaging shrub or Small tree

Git to 4 m. tall Fis. yellow, upper

petals spotted red. Pods brown.

157 (2)
GHT (2)

Thrub- 1.5 m. tall on

open roldsid. Frs. translucent
White. Lvs. rubbery.

5394. Como Hargeocerous Cartae.

(2) Let M. Flores 1977

USM

Lest a lumon cartus, to 1.5

GH

n. fall, forming clumps on dry
hills ide. Hypanthin green. Outen

tepals greenint brown. I duner topal

cream.

539 FA.

Carte

GH on dry dellide. Sterile. 5399. Cartus. Sled Small barrel cactus to only of in. tall. Fls + fruits the bright in Jenta. Peru: Dept. Piura. East of Piura. 11 feb f6. 5/80. Capparis ovalifolia Shrub 2 m. tall with Spreading branches. Fruits orange. usm GH

Prov. Talar a. Tabo Blauco. Alt. 20 m.
11 feb f6. 5401. Grabouskia boerhaviifolia (L.f.)
4H (6) Schlecht. F (A) Droves Hrub 1-2 m. tall. LVS. bluish
USM
Green. Fl. buds yellowish order.
Wey dry gullies near beach.
US Pen: Dept Tumbes. Prov. Contralmirante Villa Hacienda Chicama. Alt. 235 m. 11 feb 76, 5402. Coccoloba ruiziono Lindou

(3) no sñolque

Tree with spreading brancher

6-8 m. tall. Fls. greenil. Frs.

orle. GH (3) usmy 5403. Coccoloba ruiziana Lindau
(5) V.n. "añalque"

Tree to 6 m. tau with spreading brenches in open roadside. Fls.

Creamy while det. R.A. Howard 1985. F USM K GH 45

Psitta canthus obovatus Benth. ex 540 4. Phrystaathus Eichl. (2) det Cwgreene 1976. M Parasite on Cocarloba (5403). Calyx green. Consla, filaments dons pistil red. Peru: Dept. Tumbeg. Prov. Contralmirante Villar. Nevi La Huaca between Papayal y Cienago. Alt. 245 m. 11 feb f61 5408. Cordia lutea Lam.

(3) n.v. overs!" det Euma Cerrate fo.

GH Warmer! 1981! Sprawling Shrub

sed 3 m. tall. F.S. bright yellow. Fruits white, translucent. 5406. & LYCIANTHES CYATHOCALYX Solver.

14) BET. M. NEE 1990 (N. HENSOLD 1996) Herub 2 m. in Hickets. USM Corolla creamy white with MO vange center. Anthero deep 94 orange.

540 f Caesalpine coxymbosum? flaumin. F (3) n.v. Charán. Ivee 5 m. tallim 2º thickets. GH FIx yellow, be herewith red dots. FRS. brownish orlen.

Randia aurantiala Standl. det D. Simpson 76.

5408. Randia Sphintanthus maculatus Rubiac. GH (4) "plenta de zorro"

Climber. Celyx green. Lymber. Limbo

tube pale greenish yellow, Limbo usmi foto. bright orange. 5409. Presiflora aristulata Mast. det. Kew 1977. field. Fls. pale yellow FRS. green. GH 5410. Capparis Mollis? USM (2) nv. margarità." Tree 5 m. tall. Frs. gree. 5411. Hymeno callis quitoensis Herbert

GH (5) n.v. Zmancay

Bulbi ferous herb. Et Corolla

USM tube sale green. Tepalo white.

K ine: Mo Corolla white with 5 green lines

UN surrounded by yellow.

det Ken 1944

Eucrosia bicolor Ker. gawl. 5412 Charting det. A. Meerow 484. (sed (3) cebolla de (2 mpo")

(sed (3) Cebolla de (2 mpo")

(p) Rubi ferous herb. Fls. pale

GH USM red Hiroughout. meerow 1985

110e-> Herklots 12 feb f6 AH. 210 m. 5413. Mirabilis? Mysteg. GH (12)

(GH (12)

Kert. Fls. Leep mægentar

fading pale pinh.

Along quebrada. Gth (2) Bomboe. tellied, 40 cm. dBH. Frunk Ferile. GH 5415-Cordia POLYANTHA BENTH. (1517) (3) DET. P.S. GREEN (K) 1990 sed flrub 1-2 m. tall in white. Ripe fruit red.

Peru: Pept. Tumbeg. Prov. Contralminate Villar. Hacienda La Choza. River bed. Alt. 140 m. GH 5416 Oxalis Dombeil St. Hil. Flowers
UST (2) Semi Flesty herb. Pales prange.
det. A. Lourteig 1977. USH 1 (2)
GH Photo Tall aromatic herb is open
breedow. Calyx dark purple-black.
Corolla deep purple. USM Photo Kerb. 5 m. tale i open mesda. Pls. pale blue with white neutan guide. 5419. Arenaria Hert in stream bed. Fls..

5420 Tribulus - Zygophylk Prostrate herb à open mesdar. Fls. pale creasing yellow. 8421. AM Scrophulani GH (2) Slow aquatic fleshy herb. Fls. pale violet-blue. USMY I have

Peru: Dept. Tumber. Prov. Controlmirate Villar Between Caritas & Hussimo. Alt. 250 m. 12 fet 76. 5422. Bzuhinia zculeata L. GH (4) Thrub 3m. tall in thicket

K along quebrada. Palyx pale

gellor-green. Petals white. Talinum triongulare (Jag.) Willd.

Colordina Portulaca code

USM (2)

Flesh Fleshy herb in shade slong Quebrada. Fis. magenta. 5424. Achato Carpur mollis H. Welt. De T. T. Howmen 1979 Thrub 2-3 m. tall along quebrada. Young fruits! GH (3) iusm ! 5425. Talinum triangulare (Jacq.) Willd. Portulacacon streambanh. FG. White.

USM 1

5426- Helistropium angio spermum Mur. (2) det. M. Frohlich 1984. substrubs I m. tall in open redbank. Fly. while usmy A57 K Alt. 330 m. porviflora (A.Dc.) Solms Ut TP 542 f. Carira microcarpa Jacq. ssp.

folos. (9) heterophylla (Poepp.) Badillo

(sed Hunb, unbrouched, to

Variera 3 m tall. Pedundes 3 m. tall. Pedundes FV magenta puil 7 +8. Frs. green GH 2 with white stripes, turning drange. K-2 5428. Bougainville peruviena I candent flereb 3 m. USM pale peule, perianthe dull pinh, when cream. Ameryll. 5428-A Bulls only.

5429. Delechampia scandens L. F (4) van. hibiscoides (Kunth.) Mull. Arg. derbaccoo vine in thickets. Bracts + fls. pale gree. Det. g. L. Webster 1976. 5430. Erythroxy lew glancum O. E. Schulz
Det. T. Plowman F 1 (12) , Herub I m. tall hanging from road bank. Los. brught USMI gellowish green shove, pale K Duke green beneath with district ups -Neu Vireolae. GE GH (2) Asclepiad Herbaceous vine in Hicket. Fls. cream. (74 (4) Jet. D. Jungson 1996.

F Shrub 3 m. fall in secondary forest. Bracks light green. Fls. usm J K

5433. Erythroxylen glaucum O.E. Schulz GH /7 Thrulo 2 m tall Lin USM V hullside brichets. Sterite. Lus very Lart green zbowe. pale green beneath us U COL KNI areolate Herile! Alt. 480 m. 52434 Erg/hroxylen gleucum O. E. Schulz GH USM at base of huge Ceiba. F 115 K GB Lis. dach green showe, pale green beneath, arecolate. Sterile. 5435. Erythoroxylu glaucum 0. E Schulz WOOD Aw, Bw GH Tree 8 in tall with USM Zspreading crown. DBH 15 cm-TEXUS IX " OL covered with termite new. Growing on gradual Stope Leave firmly men brana casus, SEL NY K

dull dark green above, midrib gellow-green beneath very pale green with distinct areolar Region & bilineate. Fruits few, to light yellow green. Cartas ,5 \$35A. foto only. Logremi 5435B. Soto only corea minuic

?en. Dept. Trumber. Prov. Contramurante Villar Hussimo Quebrada Youmares. Alt. 550 ml

Tree 8 m. tall with

5436. Erythroxylum glancum O.E. Schuly

(15V)

FLON 115

F

Tree 30 cm DBH. in hilltop

secondary forest. Lis. Thing medin green above, pale dull green beneath with

distruct areolae and Imea.

Lines produced by lighter outer marein of areolal, not vaccid Frists light yellow green.

5439. Explorina velutina Willd.
(3) Let BA. Kruhof 1966.
Tree 15 m. tale with

CH (3) NY

rugose back. Spiny outgrowths blachish. Sterile.

5438. Ceiba! Tree 15 m. tall on the hulside. Trunk bellied, GIT greyich green to reddich green Forspines, Short. MA 5439. Lycianthe Shrub 2 m. tall in thicket along quelovada. Coly x and fruit light yrlen. USMI M0 5440. Erythroxylum glaucum O.E. Schulz USM in rocks 2 long stream. Losing in rocks 2 long stream. Losing in rocks 2 long stream. Losing in the light yellow see Goota; beneath pale green, areolog + linear scalely discernible. Pedical + fruits. us pale græn.

Graf. Phyllauthus of huallagensis Stendl. ex Croisat GH (1) 3 det . g. L. Webster 1976. USH Shrub 2-3 m. tall in scronlary DAVIS Words & readsides. Fruits ADADAN Lt. gree. 5442. Bunchosia ploumanii Malpiglia (4) det. Anderson 1976.

Muliub 1.5 m. fall in met F edge of thicket along 102d. glands dell yellow. Calx green. Petals bright yellow. USM Strockid cracis L. (3) det. T. Plowmen 1977. Weelet 5 m. fall in GH secondary woods. Calzx + corolla very palle green. Ovary cream. [5444.] Algar [formol] [i/smentous green slage in USM unitate Dood in quebraba.

Chara 5445. Wagners FARLOW(3) Submerged 2quelie herb in Dol i quebvoda Lvs. green. FRS. light brown. USM J Peru: Dept. Tumbez. Prov. Tumbez. Puerto Pizarro. Alt. Jealevel. (74 (4) Jet g. Vilcapome 1976. USM Shrub I un tall in thinkets USMI behind black. Fls. pale pinh K to cream. Frs. Lack red. (A)7 K

ECUADOR: Dept. El Oro. Faracay, red from Arenillas to Piñas. Alt. 260 m. 14 feb 1976 544 - Erythrahitor macropo tran Krouse Rutaceae (3) det TP Shrub 2 m. fall on Steep GH hillside. Secondary forest. usm Cely light yeller glen Con la pure White. TOXOSIPHOD CARINATUS (LITTLE) KALLUNKI DET. J. KALLUNKI 1991 GH 5448, Pariflora RUBRA L.
USH (3) DET. J.E. LAWESSONG L. HOLM-PET. J.E. LAWESSONG L. HOLM-NIELSEN 1987 Verboresus vine in 20 woods on Steep slope in revin. Frs. pale red. 5449 Clavija (TH (2)'
USM Unbranched Shrub 1.5 m.
tall in 2° foret in tavine,
FRS. orange.

5450. Calathea inocephala (O. Ktze.) Kenned,

4 Nicolson!

(6) Ilerb 2 m. tall Adong quebroda

foto in Sewi-shade. 2° forest. Los. light

HK. yellor green zborve, palle blueath.

GH Shiny. Costa + pubruius pale

USM? olive green. Petrole to 1.5 m. long,

blade I m. long Broats chaffy

jight brown to orange. Colyx cream.

Conla pale orange. Stammide

pale yellow orange

5451. Actinostemon Concolor (Spreng.) Eughorb.

GH (2) Muell. Arg. det. g. L. Webster Hb.

USM Shire b 2.5 m. tall in 2° forest

DAVIS on steep huls it. Los, denh order

show, very pale green beneath.

Fls. darh brownish - green.

ECUADOR: Rept. El Oro. Canton Rinas, Road from Arenilles to Piñas Platanillos. Alt. 360 m. 14 feb 1976. 5452. Des modium axillare (sw.) D.C. vor. GHT (2) Exillare det B.g. schubert 1977 USM Roade ile herba in thinket. Fls. deep incaenta pinh. Ecuador: Dept. El Oro. Carrton Piñas. Road from Arenillas
to Piñas.

Below Planta Electrica Piñas.

A 11. 650 m. 14 feb 1946 0453. Des modium adscendens (sw.) Dc. GH 2) det. B.g. Schubert 1977.
USTY Rosdside herb. Fis. bluide 5454. Helicoma obscuroides L. Anderss. det. L. Andersson 1985. GH(2) Herb 2.5 m. fall in USMJ DUKE tall. L.f. 1.5 m. long. Radio 4 bracts dark green fls.
yellowish green. Brackestes crean.

= Pleiostachya mortae (Eggers) fchum.

det. L. Andersson
1979.

Mortaei Eggers:

det H. Kennedy 1976. Herb 25m. tall. in cut over foto () forest. Petiste 1.5 m. long. Lf. Kewely Hisb. blade I un. long. Petrile, peden-GH 1 cle of frimary brait dark ved. Lus. dark green slove, pale green beneath with purple, tinge along mergen. Bracto pale yellow green with whitish Wax on side, mergir pale yellow. Calyo hyaling. Corolla Tube cream, tokke pale gellow. Stamen pale purple, stammode pale yellow. 5456. Renealma Oligosperma K. Sch. det P. JAMAAS 76. Kerb 2 a. tall in cut-over USM J U woods, wet foret. Break brack (TH dark red- 600m. Pedewele + tadie light gree. FAS. yellows F FRS + calyx bright Fed.

545 f. Erythring schimpffii Diels (6) det B.A. Kruhff 1966. Soto Treelet 5 m. tall, Leaflers. Jufl. Cauliflorous, Celys pale orange. Corolla bright torange. NY Lvs. from young seedlings under plant. Gesulriad. 5458. Jubshrub i m. tall in Foto! cut over wet forest. Pedicel tack purple red. Calgo dach red. Corsle bright yellow, that limb doop red. 5459. Stenospermetim Event terrestrial herb 1 m. tall in cut over wet us trany yellow. Spalie 5459A. Phlode dron

5460. Anthurum pallens Schott (2) det D. Washamen 1976 Esert Herb terristriel, in wet primar forest. Spathe light gree. Spadix right gree. Rub. Contarea 546 Lamelia Hamelia macrontha Little det. P. Matekaitis 1982. GH (3) Herb 1.5 in tall on wet FV per vordbært in thicket. FIS. Smewhat fleshy, brittle, deep yellow. (A)77K Alt. 780 m. 5462. Carren GH (3) Unbranched 8hrubs 2 m. USMV tall in open wet 102 daide of flowers: tube pale green, luib pale yellow. MK 5462A-Costus pulverulentus fols only 5462B. Costus lima for only

5463. Tropaedun papillos um Hughes (3) det. B. Sporre 1976. CHI (3) hellside thechets / Pedicles pale yen baselly, apically reddish. Spin bright red, Cela blue light sien.
Retalo fringed black.
Anthers pale the 5464. Renealma Julata Mass B (8) Herb Som tall in CTH quebrada, Lufts baral short, circling base of blent. Radio cream. Pedicel plinh. USM L F Ovary yellow. Calyo red. Coro l'a red. Steminode. FRS. darh red.

Alt. 1000 m. Near Monos. 15 Feb 76. 5465. Maranta aff. toncket Aubl. (3) last 1.5 m. tall with Spreading branches. In 2 flichet Fls- white with small purple spot on Staminade. Fruits warty, orange-red. Wy ~ Ecuador: Prov. El Uro. Portobelo. Alt. 790 m. 5466. Meranta # arundinacea L. (1) det. L. Andersson 1/87. Lerb slong grebrada in the of dry forest. Baly: yellow gree. Constra prine white. 2 fls. only. 546 F. Peperomin freseri C.DC.

GH

Fleshy herb on roch i 2º foret. Stem, petioles & veins beneath reddist. Spiher white.

Conton Pinas. Below Planta Electrica. Alt. 780 m. 16 feb \$6. 5468. Lossa triphylla Juss.
(3) Hert I h. tall on wet Petalo pure volute Corona Sonh Boragin? 5469. Tournefortia GH good Herb or subshrub 1 m. wained tall in wet road bruk. Jufl. pendant or long pedemeles.

Fls. dull cream. Berry

pure white turning deep

blue green on picking ort

bruising.

Ecuador: Prov. El Ovo.

Arcillas. Road South of Arenillas toward Piedras. Ait. 150 m. 16 feb 76 54fo. Erghroxylum glaueum 6, 8. Schulz , Thee 7 in in low secondary forest, in water hole Trunk USM . GH Small pieces. Los. light SNY GB gelowish-gree to tall medin green shove, very pal green Leveath. Sterile! MO Only one good. 54 Fl. Sorocea trophoides W. Burger English! det. c.c. Berg 1976. Shrubby 2 m. fall in forest waren Pedicels Light red. Frs. black at matterity. foto

Ecuador: Prov. El Oro. Canton

Syfz. Fluegges elliptics Baillon Eughorh.

det 9. L. Webster 1976.

Theelast 3 m. fall. Forest

Downs warein Fluegale yellow.

Flus. yele.

Prov. Farumilla. Metapolo. Bosque Nacional de Tulubeg. Near Matapalo. Alt. 150 m. if Feb fe 5473. Malpighia cornell thrub or smell tree with spreading brenches, to 5 m. tall in secondary forest. Fruits bright fed at maturity. Recent applications. BH GH 5494. Erythroxylum glaucum 8.8. Schulz Murch 3 m. tall in secondary 45M forest margin. LVS. Median preent FCON shove, dull midrib yellowith shore. beneath very policy real with ever 405 Pedicel, caly x + 1 musture fruits RB WIS K

5495. Pessiflora Kerbaceous vine in open thickete Fruits light green. Goods It. grew. Petals white. Concle. light purple. USMI 54 F6. (apparis Shrub 1.5 m. fall in 132d-5 de Krichet. Fkrits light gree, Shring USM GH 54ff. Euphorbia graminea Jacq. det. g. L. Webster 1976! Heruts 2 m. tall in forest margin stong vsed talet white Ovary yellowish gree. GIT ) USM DAVIS

PERU: Dept. Tumber. Prov. Ferunilla. Region below El Exects. 350-450 m. Alt. 18 Feb f6. Dry tropical forest. 5498. Cyclanthera MULTIFOLIOLA COGN.
(3) DET. N. HENSOLD ZOOD. Herbacesas vine in open roadsides in thinket. Fls. + young frs. yellowish green. sp. nov. 54 fg. Bunchosia ploumanii W. R. Anderson Maljighiac. GH(3)Hicket. Ets yetters. Fks. green, to orange to red. Mich 5480. Bunchosia plonomenii W. Riderson Malpighiac.

GH (3) det. W.R. Anderson 1946.

WISM Much 2 m. fall in John

MICH Shuthets. F1s. yellowthroughout. IVE: Weimia

GH (3) LISM J

5481. Acmistus GH (3) Seed heden Shrub or small tree to 4 m. tallon rosdaides. MRE FRS. orange at meturity GH 5482 (Cassia) SENNA MOLLISSIMA BEGNON. MO (3) (WILLD.) IRWIN & BARNEBY VAR. MOLLISSIMA MO (3) Tree 5 m. tall on pedbank at edge of forest. Lvs. light gree, baler green beneath. FRS. Very ddib-green, brittle. DET. R. BARNEBY 1988 5483. Zzyphus GH (2) dent branches 3 m. tall i ge Hicket. Frs. It. 5484. Croton pavonis Muell. Arg.

GH (3) det g. L. Webster 1976

USM Treelet 5 m. tall in forest DAVI margi. Fks. green.

5485. Lantana scabiosaeflora H.B.K. Shrub & 1.5 m. fall on of Inner fls. pale yellow. GH (1)
USHJ 11. Vine on open rodbout. Calyx pale green. Con la tube pery pale green toward center, yellow petals.
Food plant of Ithomis. 5487. Croton GH (3) Treelet 5 m. tall in forest DAVIS margin. Frs. green. Strong facq. Strong facq. F (4) Let Euma Cerrate forest F (4) Let Euma Cerrate forest usm (4) Shrub 1.5 m. tall in shaded GH 102d Side, Edge of forest. Later white. Con la white. Hes. gree. K

5489. Copparis GH (2) Straggly thrubs 2 m. tall. Ly. correccou. Frs. shing, mehogany brown. 5490. Decquina Spring leaved Shrubs, deurely USM J GIT branched to 3 m. tall. pale gree benedtt. Fks. 5491. (2)Tree is in tall in hill ged green storest. Lis. Sliving dark green store dull light green seneath. Frs. dull green Usmi GH at meturity

5492. Solzmun GH-2(3) Clembing herb on 102 dbank. Fls. bright yellow. 5493. Piscidio carthageneusis Jacq. Leque.

(2) det. V. Rudd 1977

sed-1981! Tree 10 m. tall at forest

usine heaving along road. Frs. brown.

Gr 5494. Pontederia F (3) Geniaquatie herb in large mud puddle i bord. Fls. crean. usm GIT 5495.

(3)

Herbaceous vine i Hunhet
on roed banh. Fls. pure white. 5496. quareo: Meliacea GH (2) Thee 8 m. tall: FIs. creamy yellow. Frs. gree. Lis. lustrous.

Wulffia 5494. Aspilia det. E. Zardini 1977. Comp. GA USMY Shout 1.5 m. tall on que voed bank. Very fire-quent. Fls. deep yellow. GH (2) Herb on va Herb on roedbach. Lvs. Spattate-peltate. Jumstan spatthe it gree. & f(s. pale gree. Sterile fast pure white. of fis. Creany white stender Uncommon 5499. Kanthosoma hellebori folician (2) No. 0 Hert I ya- tall on road spathe light green. Spadix creamy white throughout.

5,000 Cayaponia F (3) Wer of the GH Cucurb. Herbaceon vine i Huihet. Calix gren. Corolla light yellond Thee 6 m. tall. Frs. GH I 1. live 1981: Tongiflorus (Cav.) K. Sch.

Vive u Huchet, 4 m. tall.

det A. Gentry 1976. ( live 1981! MO. J

Pen: Dept Tumber. Prov. Baru-milla Papayal. Alt. 105 m. 5503. Tabebrua billbergii (Bur. + K. Schum.) (2) Stendl. waimingseed thrub 3-4 m. tall in NO gen thickets. Firs. dark Mo green to brownish. det. A. Jentry 1976. 5504 Heliotropium angiospermum Murr. 1941 (2) det. M. Frohlich 1984 Herb to In tall in Open pastures. Fls. white Ny 5505. Lautana svensonii f. albiflora Moldenke USM (2) Shrub 1-1.5 m. talli throughout.

Let. Moldenke 1976 GH SSG. Ducens USM (2) Armed Shrub 2-3 m. tall in oper pastures. Fls. white.

Peru: Dept. Tumber. Prov. Tumber. Puento Pizarro. Alt. 10 m. 19 Feb 76. BA (3) Melpiglia
USA Shoul 2. Hrub 3 m. tall in open sændy thickets. Fks. fæle yellow-green CT# 5508-Cereus? seed thuch Arbores cent, cactus 5 m. 15M I tall Hyparthin dark green that the temple CTH tavand fred plubl ved. Juner tepals ste cream. FR: print. hep-to-5509 Cereus GH (3) det M. Flores 1977. USM Columna Cactus 1.5 m. fall in open sounday area hear sea. Overy to gree. Hypauthein It. yellow-gran Viden tepale reddish. Funer tepals cream tr. green.

Peru: Dept. Piura. Prov. Yslara Penemenca Highway SE of Mencora. Km. 1216. 21 Feb 76. Alt. 10 m.

GH Schlecht. det. Ing. Vikapanz USM) (A) \* Yhrub 1.5 m. tall in per MO barrer foundy hillside. Fis. Comments White-

5511. Proboscidia altherefolio (Benth.) Dec.

usm (3) GH Hert in low, mud area behind

beach. Stems fleshy pele redlik Lis. dark green showe pole creen beneath. Calze light gellowish green. Coro de tube dark red A > K. without cream within with dach red spots. Corolla lobels

dark red abaxisly with deep yellow spots; adexistly deep pllow with dark overege spots.

Fregrent.

PERU: Rept. Lambayeque. Prov. Lembergeque. Road from Olmos to Abra Porcula. Alt. 1180 m. 22 Feb 1976. Gt (2) Scandent Herb I m. tall stong USMV quebradas in open. FIS. white. 5513-HekB .7 m. tall along GA (2) Guebrada on sodsite. Fls. White. Fls. green. 5514. Solenum Sprowling herb 1 m. tall on wet roedbank. Lus. purplish. FIS. yellow. Alt. 1500 m.

5515. Annon - Massacrass usmy (3) Tree 5 m. Hong voedsides. Spontaneou. Fr. green.

GH

5516. Arnaldoa macbrideana Ferreyra USM Shrub 3 m. tall on step open hills des Involvene us silvery grey. Fls. rose-pruh, 551 f. Armotus GH (3) Shrub 3-4 m. tall on steep open hillside. Fls. pale yellow. USM PERU: Dept. Cajamarca. Prov. Jaen. Between Pucara and GH 5518 Ruellio tuberosa L. CILIATIFLOEA HOOK Herb in wet place along had. USM1 (3) us foto F13. pale plue - violet. DET. N. HENSOLD 2000 5519. Malpigliso composed Low shrub 1 m. tall in The USM bright red.

BH bright red.

Peru: pert. Cajamarca. Prov. Joen. Between Kis Chunchuca Zananga 1009 Alt. 550 mg Ris Changa 23 Feb f6. Dry tropical forest at been river 5520. Erythrocylum of pacificum D. Simpson (12) E. sp. off. E. Impressum O. E. Schulz 1981. Small tree 5 m. tall in dry F-12 The forest of small trees, shrub's USMJ and cacti. Heavily grazed by GH us goots. Trunk 5 cm. et bese! ECON Back suros the grey of Lus dull, medin dark green above with paler green cooks and lateral NEW HUT MO herves; paler green beneath, G costa yellowish. no are slas or Cinea apparent. Young fruits pale green, drying brin. no mature foruits seen. VOUCHER SPECIMEN

(3) Esp. off. E. impressum o. F. Schut. Thrub 2.5 m. fall in USH J Lus! Lack dull green shore, GH 45 very pale green heneath, costa yellowish. Twigs pale que. Pedicil + foring fruits fale green. 5522. Enthroxylum of Pacificum D. Simpson E. Sp. 21. E. impressum O.E. Scholz GH (8) Smell tree 4 m. tall m USMI dank gree store, palegier beneath. Pedicel & young fruits pale gree. US F-2 Neu HUT NY 5523 Shout to triclet 4 in tell Very frequent in Secondary GH MAN USHIJ. words. Fruits translurent

White Seed black.

5524. Caesalpinia cassicides Willd. Leguminosce (2) det. Tplowner 1978 USMI Shrub 1 m. tall on dry open Git barren road bank. Caly x light gree 625elly, lokes ved. Pexels Peru: Dept. Amazonas. Prov. Begua. Retire Rio Maranos and Ris Utcubamba, 6 km. east of Ris Maranon (Puente 24 de Julis). Alt. 450 m. 23 feb 76. Thorn forest, very dry. 5525. Solonen (1) Nearly leafles thrub 1.5 m. fall. Fls. expearing with leaves, 5526 Bumelia? Sping shrub 5 m. tall. Fis. green with mithy latex. USMJ Crt

GH seed free 5 m. tall. Lus. light USMJ gellow grew zbone, paler gr. Leneath. Fks. orange at meturity.

5528. Capparin angulata R. 4 P.

(2) n.v. Fapote det. Emma Cerrate 1976

USM Tree 6 cm. tall with trump

GH 15 cm. DBIt. Lus. coricceour.

Petals, Colyx + fedicel durch brown

Filements crea.

GH 3 det. g I Webster 1976
USM Shrub 1.5 m. tall in
DAVIS dry thinkets. Lvs. pale gree.
F15. cream.

Heru: Dept. Awazonas. Poor. Bagua. Rio Utcubamba 8 km. storre Begua Grande. Alt. 580 m. 23 Feb F6. 5530. Steriphoma Beruviana Spruu Legas. (4) det. T. Plownan det. T. Ploroman F (4) Spendly Shrub 3 m. fall i dry hillside forest. Stew USMJ of petroles dark rusty brown. GHT. Pedicel & calya brilliant red-K Flaments + Style pale geller. Styma brown. FTS. dimorphia. Euphorb. 5531. Jatrophe Succeedent herb 1.5 in tall in dry hillside forest. Latex whiteil . Stew + pedrucle tale green. Lvs. dark green 26 ove, yeng pale whitist gre-beneath! Rachis + pedicels bale pur Pegrant red. I Fes. very pale green.

GH

USM 5532- Reperoncia

F (3)

Waimen seed fueculent hert gorwing

on Steep soutbant at edge

of dry forest, Petiole + pedunde

palt fed. Los. thich fleshy

med. yellon-green slove, very

pale yellon-green beneath.

Speke Create. Seeds black.

Plan: Dept. Amazonias. Por. Bagna.

Road from Begna grande to Pedre

Road from Begue grande to ledro
Ruig gallo (Pte. Ingenio), Le trueen
Puente Pter Buebrado Onda and Rio
Magunchal, ## 210ng Rio
Utchbamba. A 1t. 695 m. 23 Feb Hb.

5533. Eythroxylum shatona Mache. act. T. Ploumen 1977. USM SP woist G un. tall in (18) GH F-2 moist forest on steep hillside along river. MO HUT Truck 8 cm BBH. Back K NCU broken-corrugate: NY (FB

Bramber grey, terete. Twig ight green, flattened Lus. Uping i am plane, dark shing green above; WOOD: Au MADW Uw Kw beneath light yellowish green the newes + undrib frominchous, areolae barely paler gree or bounded by fait. Stipules light gree appearing in acil ethacurrent growth or old growthy 1-3 per læxit Pesicel + calyx light jellen idt gren. Budå gellen . Fls. clean yorking formits pale green. Frequent tope at this locality.

5534. Englinagen shotono Marbor. GH Treelet 4 m. tall is under-PV Story of cut-over forest on Steep hillride Back grey to light brown, corrugate. Lis. USM Mo us shing dark green stove; kipt gellowish-green beneath. K 5 NX alcolar distinct lighter gree. Bud yellowith. Fres. pele gree. INPA u

GH (3)

Let T. Ploremen 1977.

USM Treelet 4 in tall i under

Story of forest on steep hillinde.

Los. Shiring dank green zbove;

beneath highter yellowish

green with district paler

shiftly concave areolar region.

But yellowish young fruit

pale forest

5536, Zamis findenii. USM Cycol 1-1.5 m. tall; cranlescent.
GH Sterile. Apocyvan 553F. Wordy vine 3-4 m. tall in understory of forest on steep bills de hatex white. Fls. cream.

PERMI: Dept Amazonas. Prov. Bogata Rozd from Pedro Ruiz gallo (Pte. Ingenio) to Pomacocha. 24 Feb 76. 1330 m. 2lt. 5538. Delechampia aristolochii folia Kunth F (5) det. G. L. Webster 1976 Use in open rozdoide thickito. GH Smell brants pall green. Large USM (5) GH bracts bright magenta purple. Glands reddish. Cyathea Magenta. Phs. gellouish gree. DAVIS 5639. Jequemontia USM Vini i gre rædside thichet. Fls. deep blue. Alt. 1500 m. SS40. Chamendores: Morenia of linearis (12) "Chontilla" (R.+P.) Burret Pelu 5 m. tall in cut-over USM or infl. vachis white, fls. yellow. BIT GH

f infl: rechis green, fro. green
furning red.

Att. 2000 m.

5541. Calcelaria
(2)

(2) Woolly herb 2 m. tall on moist rosdbauch in thicket. Lus. yellowgreen sloove whitish pubercent beneath. Celyx yellow-green. Corolla light yellow

5542. Solemun saponeceum Dun.

(4)

Let g. Vi/capome 19f6.

Fr. Shrub 2.5 m. tall on open

ust redoide. Consta deep violet.

Git tos. Stews & understide of

leaves dark purple, Frs.

USM 5543. Devecha F Spredig Herb. 5 m. tall on open Ged Leiter Bidside. Fls. pole levender des purple inside tube. Frs. vange.

Alt. 2250 m. 5544- Solvia usm. (2)
Herb In. tall along quebrado beside voed. Raili:
t calx deep inegenta. Consta
highter inegenta pink. Alt. 2150 m. 5545. Desmodium USM) Erect herb ir open vordsides. Fls. pale pink. Roed from Pomecocha to Yambrasbamba. 24 feb 1976. USM (3)
Ulive Banta. Klent 2 m. tall on steep
Shady hillside along quelovada.
Deure forcot. Sterile, not
common. usy 554 F. Bomarea (2) Vine on rosabanh. Fls. lesp red.

PERU: Dept. Amazones. Proventhe Charlespoyas. Bongara. Roed from Pte. Ingenio to Charlespoyas. Rio Utcabemba. 25 Feb 76. Alt. 1420 m. GH 5548 Brugmania aurea Lagerhein usm 5 labels thrub 3 m. tall on riverbanh in open 102d bank. Fls. white. 5549. Jecoma rosifolia H.B.K. Bignon. Scandent vine in thicket on wishauch. Coro la tube red dorselly, yellow ventrally. 5550. Lacquementia blanchetii Moricand Vin in open rædeide thicket. Fls. light blue.

usy

MO

USMJ

GH

fer (th (1) Flert on steep dry wodbank is crevices. White beneath. p (3) det. R. Callejas 1986. Succeelent hert on dry per usm cliff along voed. Lus. danh green stone, very pale green beneath. Pedimile reddish. GH Spikes green. 5553. Salvie GH usm Photo: Klest I un. fæll in tordaide thicket. Rashis + calyx light green. Fls. Leep blue. 5554. Salva? Kert (m. fall in rosdisk Lichet. Fls. light blue-vidlet.

-> P. megalophyllum Schott det Crozt 1985. -> Philodendron of deflexum Poepp. det Crost 1982. 5555. Philodendron megalophyllum Schott det. D. Washausen 1996 Terrest. Climbing herb on steep Jochy cliffs, Spathe pedunche green Spakix of white, of Cream. GIT 45 5556 Justicia hookeriana (Vees) . Acantha Lindau det. D. Wasshausen fb. Herb. 5 m tall on open roed-Gff usm banks. Calyx poli green. Corsla Scarlet. 45 8. Alt. 1500 m. 5557 Evolvalust villesus 4300 Kerb . 4 m. fall on dry open rosdbanh. Foliage Silvery. Corolla (TH Getes (Adr. Juss.) Comb nov. med.

GH 5558, Banuteriasis leiocarpa Walfish.

GH, (3) de t. B. gates + W. R. Anderson 19961 Vine in thicket slong road. Petals bright yellow. MIGH (A)

5559. Amphilophium paniculatum Bignoniae
(L.) HBK. var. molle Vine 5-6 m. tall in open USM Fl. Buds yellow turning pulple, MO then folling cream efter pren-ing, strikes.

det N. Gentry 1976. GH ATT K [2] Trizna + Planchon flavort GH (2) USM V Tree 6 m. tall cloud Fis. cream. FRS: red. Alt. 15 fom. = H. intermedius Hutchison sp. nov. ined. 131 Let. J. Solomon 1980. Live Bonto Cambring spring cartur 6 m.

Church British growing in tree. Tepalo a

War in a strang green, and tipped with red sprine.

GH Chor bonn, tipped dark red, fleshy.

F Honology Outer tepalo a limb deep prich at

1857 gar Outer tepalo a limb deep prich at

1867 gar Outer tepalo a limb deep prich at

1867 gar Outer tepalo a limb deep prich at

1867 gar Outer tepalo a limb deep prich at PIBC base, deep yellow specially. Junes fees tepalo creamy yellow. Filaments,

authers style i stigma light yellar.

5562. Pavonia riedelii Gürke Malia.

(3) det. Magda Chanco, May 1976.

F Bert I cu. tall on ope

USM barbanh. Consula deep

(714 yellow, danh red at centle.

Filaments danh red. Styles

gree.

PANONIA HIERONYMI GÜRKE

DET. P. FRYXELL 1991

Road South from Pte. Ingenio toward Chachapoyas Hlong Kis Utcabamba. Kin. 6 from ( Alt. 600 m) La Caclid. 25 feb \$6. 5563. Erythroxylum novogranateuse (5) var. trukilleuse (Rusby) Plouma Cult Shouls 2 m. tall in open USM unigated field. Touchs several ELON to & cu diameter at base. F Branches stender, straggly droping over. Lus. Lash green NY 45 stove to med. yellow-green,
pale yellow-green to
weath, linear faint, areolae
faint, slightly baler.
Redicil + caly × 1ight gree. Petals cream.

PERU: Dept. Amazonas. Prov. Chachapoyas.

(5) Erythrosylen novogranateure (5) var-truxillenre (Rusly) Ploumon Calt. Thrub 13 m. fall ECON growing in shade of Juga F green stoor. Lus. deep yellow-green stoor, dull; pale green beneath with dis-K finct raised lineae; \* areolae detruct, smewhat thicker, yellower caste. Lattral nerver of veris dark outside areolal, ob-Seure within. 5565. Erghroxylum novogrenstense ver.
(6) truxillense (Rusby) Plaumon (6) Cult. Shrub 2 in is irrigated brown on brown by. Twing hed-dish brown. Lus. medin to It. 1-KB NCH gellouist gree above, costa yellow green to very pale green linea aint, indented or slightly raised. areolae paler or concolorous,

Fis. solitary is axilo. Pedicel pal gree. Calyo for yellowish free. Petalo or cream.

FR. yellowish orange.

Small plantation co. 300 plants, most infected with licheur, including younger brancher, Planted about I in apart but open planes undicate some plants removed.

Interplanted with yours, furmerin, platerum, t coffee.

Other crops around field t is adjardness field:

achiote, cherimoya silvertre, guara, Inga, mongo, temon, ovange, sugar cane, coffee, Crescentia, Maine, Ricinus, papaya, avo codo, Opintia (tuna) + Furerea.

5366. CAPSICUM RHOMBOIDEUM (DUNAL) KUNTZE LAN. GH (3) Must 2.5 m. tall in 1024-Side thunket. Con la yellow. Fis. white at maturity. Mo Alt. 1650 m. 5564. Coreopsis microlepis Cours. Blake & Sherff
Herb. & un tall on dry ope
hellside. Rays yellow. orange.
det. E.H. Zardini 1977 5568. Peperomia sp. 2000. friedled herb or dy sper billsides. Rachis pale gellow. Spihe yellowin. GHUSM 569. Cantus quercifolia Polemon at S Subshrub . 8 m. tall on USM-V grier. Con la take creasing yellow. Limb pure whit. Authers grange. F ATTIK

PEur: Dept. Amazonas. Prov. Chachapoyas. Rosd from Leyme-bamba to Hornograpa Afra 27 fel fl. Barro Negro. A 17. 3000 m - Cloud forest. 55 fo. Brachy. tun multinervium Wurdock USM J Hrub 1.5 m. tall in det J.J. Wurdack 1976 GH Bodoide Huchet. Calyx + \* total orang bright red. Petals 6/2ch. 5571. Brachyotum weberbaueri Cogn. Shout 2 m. tall in ned-GH (3) us 45M) side thickets than & Calyx pale yellow-green flushed with red to nearly red. Petalo pale yellowish green, tipped with 5572 Subothrin Proteac. GH 102 Shrub 2 m. tall in oper GH, postside thicket Radio pula green ? estical pinh. Receptable + stone potenth cream. Pistel cream, ovary pinh.

5573. Brachyotun radula Triana (1) det. J.J. Wyrdoch 1976. 115 Shout I'm. tall on open rook 级 back. Ovan + Calyx yellow-orange tinged copper ovange. Petals block. Style deep Magenta. 5574. Symbolanthus colygonus (R. + P.) Griseb. Gent. det. P.J. M. Mass 1985. USM Slender Mrselb 2 m. tall, in hillside Coro la rube carmino ved, lobes rose pinh. 5575. Siphocampylus jelskii Zahlbr. Lohelias. F (5) det. B. A. Stein 1/85. Unbranched herb 2.m tall on open slopes. Lus, dark green USM J Calx lober dant purple. Comba GH K tube cream at bele, dark furple when exposed; cream within Strine tuber yellow-gree, aprially with violet hoirs. US U BIK

GH & Calcolaria moyobambae Kränglin Scraph.

GH & ht. U. Molau 1/82.

USM) (D=GB Hrub 1.5 m. tall in thickets

on gen slopes. Calyx & corolla

bright yellow. 5177. Calceolaria Scropt. GH Substanit 0.7 in tall on grenish-white. Cors la bright yellon. = C. extensa Benth. Let. Molan 1982. Scraph. GH (2) Calobria flaces Molau s. nov.

PARATYPE

SM (D) Substrut 1.0 m. tall in revine slong waterfall. Twigs, petrole + major nerves (A) >> GB burh purple. Celyx danti bornist-green. Conslabright yellow.

5579. Calcelaria Scroph. Substrut I m. tall in revine slong walerfall. Calyx ught greet. Con Wa bright yellow. Peru: Dept. Amazonas. Prov. Chachapoyas. Between Abra Chanchillo and Hornopanpa. Alt. 2180 m. Frank 5580. Delostoma lobbii Seem. Glastian Let. D. Wasshausen 1996 (4) Mout 2.5 m. tall on open USMV hellside. Calyx + orang light green. Corolla tube + 10 bes deep (15 darmine red, lobes streaked rel + white ddexielly. Tube white within with fine red stripe. (IK 5581. Desmodium molliculum (HBK.) DC. 150 (2) Prostoste herb on gravel 102d-USM (2) Side. FIS. magenta pull. det B.g. Schubert 1977. 5382 Monnina Here or gravelly rosdide. Fls. dark blue, keel yellon.

PERU: Dept. Amagnas. Prov. Charhapoyas. Between Balias Yumbay 2nd Hornopompo. Alt. 1100 m. Dry thom Scrub-area. 27 feb P6.

5583. Erythroxylun novigranateuse Vorthux: Hense (Rusby) Plowmen USM J Cultivated Shrub in small irrigated cora plantation ECON 7 Fre Shrub 2 m. fall with 115 spreading branches. Spend K Leaver dark to light yellow-NCU green shore, the veines more or NY less distint, lighter yellowish; HUT green to yellowish, linea more uor les Listint, arestal some what highter fruits aw, pedicel bale green, fruits orange truming bought red at meturity.

Small plantation whome river. Other plots down in flood plain i new prepared fields. Fields weeded, plant told, bunch branched, Spared at least 2 m. spart. Picked by holding entire branch and at once ripping off almost all the leaves! Howest every 3 months. Psku: Dept. Amazonas. Prov. Charles poyas. Road from Balsas to Huanabamba. Alt. 880m. Shores of Ris Metanon. 28 Feb F6. WHATELE Cienfuegosia optriportità (HBK.) Gürke 5584. det. Magda Chanco, May 1976.

G4 (2) but 6 in tall in sandy of place. Fis. pale yellow with dark red spiral centers. Stowens ted-GH (2) armed the spreading shrub 3 m.
(44 CL) tau. Fis. deep yellow. Frs. green.

det. V. Rudd 1977

PEnu Dept Amazonas. Por.
Chacha poyas. Between Bolsas
and Hornopampa. Alt 1100 in.
27 fel flo. Yumbay.

5586. Matisia Cordata Hund. 1 Boupl.

(1) "sapote"

Cult. Free 6 W. tall in

irrigated farm. Frs. brown, orange

fleshy:

558 J. Erythroxylum novogransteure por.

(3) N. Roce truxillense (Rusby)Playmon

(D) Single Cult. I shrub & M. tall in

Shode of avocado plantation.

Young plant. Back light red.

ECON dish brown, Lvs. dark green

with light yellow green midrit

above; Beneet pole glaveous

green, midrit yellow-creen

linea present, darker green

yellow green. Pedirel pale

glaveous green FRenits

bright orange

AT7K

8 yr. old plents 5 (4) n. v. coca (Rushy) Plormin Cult- should 15 m. tall in irrig gated field full sur. Back grey-(FCDN) fuir receivest browns Lis medie yellowgreen shore, indrit light yellowgreen, veins slightly raised, light, beneath very half green, line and area lighted hime yellowish. Tedical pools glavious green. Fruit light yellow. 5589. Erythroxylun norogransteine var. truxillense (3) n. n. co ca" (Rusby) Flowmen F : (3) & Much branched cultivated USMJ Shrub in open irrigated field. ECON 2 m. tall. Back light grey-born. Twigs reddick brown. Lis. wed yellowish pren above, midrit bright yellow, vein prominulous; ivs. beneath pale gree, undrib dull yellow, veinlets dark outside areolae, obscure within. Lines L areolae Concolor. Peduce pali green. Firs, light green to yellowish.

3) W. Evel Hruxillence (Rusby) Plowmer Cult flict 2.0 m. tall in greyit brown Twip lighter red-ECON dish brown. Lis. helder to light F gellowish green stove, undrit K gellowroh; hereath pale glan-con gree, inea lighter, areo-(a concolorous, verialet obscure i areolae. FRS. bright gellowish gree to gellow. 5590A. Erythroegh novogranteure on Feir's fresh seed puched up from coca drying floor. 5590B. Engthrougher novogranateur only seed said to be I month old picked up in discard pile.

3 crops/yr. Planto 8 yrs. old. Not interplanted but meny ther crops adjacent fields Clean field, no weeds. Ir nighted I/week.

PERU: Pert. Cajamarca. Prov. Celendin Between Baloos and Abra gulig. Alt. 3000 m. 27 feb 76. 5391. Celeolaria GH (2) Herb .5 m. on dry vochy USM hillside. Foliage silvery. Corolla bright codmium yellow. PERU: Dept. Cajamarca. Prov. Celendin. Both Days Cajarwards: Between Celendis and Agrads Coloradas below Challuayacu. Alt. 3300 m. GH 5592. Monnina 1841 (2) Herub 1.5 m. tall. Consta dark blue-purple, keel deep yellow. 5593. Lupinus Thrub 2 m. tall. Banner laterally, blue-violer, white at USM Cente. Klings dez blue volet. GH

5394. Coffermen 1883. Tall hert I u. with stringing hairs. Colyx yellow with gree! Corolla light orange. GH-F-PERU: Dept. La Libertad. Trijulo. 1 mar 76. 5595. Peperoma n.v. gongona -Waimea Thedicinal heat bought in market: use: tes made from stem + leaves. Taker for heart ) voblems, murum etc. ELON PERU: Dept. Cajamerca. Cajemerca. 1 MAR76. 5596. Lagenaria "calabacito" seeds Bottle gourds purchased gounds in Cajemarca market. only Used for holding limes Brought from the coasts

Peru: Rept Amazonas. Prov. Cha-Chapoyas. Above Hornopampa. 7180 m. 5597. Dodonala viscosa 27 feb 76 seed only Shrub (m. fall on dry open podside. FRS. po light brown.



